## REMARKS

With this amendment, Applicants have amended claims 1-18 and 20-26 for clarity. Applicants have further added new claims 27-45 in order to claim additional aspects of the present invention. Applicants have cancelled claim 19 without prejudice. Applicants reserve the right to prosecute claim 19 in one or more continuation, continuation-in-part or divisional applications. Furthermore, Applicants have amended the specification to correct typographical errors. Applicants have also added an abstract. Upon entry of the present amendment, the pending claims will be 1-18 and 20-45. No new matter has been added by way of these amendments to claims 1-18, 20-26, addition of claims 27-45, changes to the specification, or by the new abstract.

## CONCLUSION

Applicant respectfully requests that the above-mentioned amendments and remarks be entered and made of record in the file history of the subject application. It is believed that all claims are fully allowable and early indication of the same is earnestly sought.

It is believed that no fees are due in connection with the filing of this amendment other than the extension of time and fees for additional claims. However, should the Unites States Patent and Trademark Office determine otherwise, please charge the required fee to Jones Day deposit account no. 50-3013, referencing CAM No. 866342-999001.

Respectfully submitted,

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**Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) A method for locating a position of an impact on a surface ~~(9, 15, 17, 22) forming part~~ of an object ~~(5, 3, 16, 18)~~ forming an acoustic interface, the surface provided with at least one acoustic sensor ~~(6)~~, the method comprising:

measuring ~~a method in which~~ at least one sensed signal ~~is sensed~~ from acoustic waves generated in the object forming an acoustic interface ~~(5, 3, 16, 18)~~ by said impact; ~~and the impact is located~~

localizing said position of said impact on said surface by processing of said at least one sensed signal, the processing characterized ~~in that it comprises~~ by a ~~a recognition step during which~~ comparison of a sensed signal in the at least one sensed signal ~~is compared~~ with at least one predetermined signal in a plurality of predetermined signals, wherein

each respective predetermined signal in said plurality of predetermined signals corresponds to an active zone in a plurality of active zones on said surface, and

each respective predetermined signal in said plurality of predetermined signals represents ~~corresponding to the~~ a signal that is sensed when ~~an~~ a reference impact is generated on ~~at least one~~ the active zone in said plurality of active zones that corresponds to the respective predetermined signal, ~~(10) forming part of the surface of the object forming an acoustic interface (5, 3, 16, 18)~~ and wherein,

~~and~~ the position of the impact is associated with an ~~said~~ active zone ~~(10)~~ in said plurality of active zones by said localizing when ~~if~~ the sensed signal is sufficiently similar to said predetermined signal corresponding to the active zone.

2. (Currently amended) The method ~~as claimed in~~ of claim 1~~, in which the surface of the object forming an acoustic interface comprises several active zones (10) and, during the recognition step,~~ wherein said localizing comprises comparing the sensed signal ~~is compared~~ with ~~several~~ said plurality of predetermined signals, each respective predetermined signal in said plurality of predetermined signals corresponding to ~~the~~ a

signal sensed when an impact is generated on a corresponding one of said active zones in said plurality of active zones ~~(10)~~.

3. (Currently amended) The method ~~as claimed in~~ of claim 1 ~~or in claim 2,~~ wherein

said at least one acoustic sensor comprises a plurality of acoustic sensors; ~~in which several acoustic sensors (6) are used and, during the recognition step, one signal~~

said at least one sensed signal comprises a plurality of sensed signals, wherein each sensed signal in said plurality of sensed signals is ~~sensed~~ detected ~~for~~ by ~~each~~ a different acoustic sensor in said plurality of acoustic sensors; and

said localizing comprises comparing, using a first comparison technique, a first sensed signal in the plurality of sensed signals ~~sensed by the different acoustic sensors are compared~~ with one or more ~~the~~ predetermined signals in said plurality of predetermined signals that were measured using the same acoustic sensor that sensed said first sensed signal, wherein said comparing of said first sensed signal is performed independent of all other comparisons of sensed signals ~~signals independently of one another~~.

4. (Currently amended) The method ~~as claimed in any one of the preceding claims~~ of claim 3, wherein said localizing further comprises comparing, using a second comparison technique, a second sensed signal in the at least one sensed signals with one or more predetermined signals in said plurality of predetermined signals that were measured using the same acoustic sensor that sensed said second sensed signal, wherein said first comparison technique and said second comparison technique are ~~in which several acoustic sensors (6) are used and, during the recognition step, a signal is sensed for each acoustic sensor and the signals sensed by the various acoustic sensors are compared with the predetermined signals in a~~ different ~~way~~ from one another.

5. (Currently amended) The method ~~as claimed in any one of the preceding claims~~ of claim 1, ~~in which~~ wherein said at least one acoustic sensor comprises a plurality of acoustic sensors that sense said at least one sensed signal ~~several acoustic sensors (6) are used measuring~~ at several different magnitudes.

6. (Currently amended) The method of claim 1 ~~as claimed in any one of the preceding claims,~~ ~~in which~~ wherein said at least one acoustic sensor consists of one acoustic sensor or ~~at most~~ two acoustic sensors ~~are used~~.

7. (Currently amended) The method ~~as claimed in~~ of claim 1 ~~or in claim 2~~, ~~in which a~~ wherein said at least one acoustic sensor consists of a single acoustic sensor ~~(6) is used~~.

8. (Currently amended) The method ~~as claimed in any one of the preceding claims~~ of claim 1, the method further comprising:

experimentally determining a predetermined signal in said plurality of predetermined signals, said experimentally determining comprising:

(i) generating at least one impact in an active zone on the surface of said object, said active zone corresponding to the predetermined signal; and

(ii) measuring a signal caused by the at least one impact using one or more acoustic sensors in said at least one acoustic sensor ~~an initial learning step during which each predetermined signal is determined experimentally by generating at least one impact on each active zone (10)~~.

9. (Currently amended) The method ~~as claimed in any one~~ of ~~claims~~ claim 1 ~~to 8~~, ~~in which~~ the method further comprising:

(i) generating at least one impact in an active zone on a surface of a reference object that is identical to or very similar to said object, said active zone corresponding to the predetermined signal; and

(ii) measuring a signal caused by the at least one impact using one or more acoustic sensors in said at least one acoustic sensor ~~each predetermined signal is a theoretical signal~~.

10. (Currently amended) The method of claim 1 ~~as claimed in any one of the preceding claims~~, ~~in which,~~ wherein ~~during the recognition step~~ said comparison of said at least one sensed signal with said at least one predetermined signal comprises ~~, the sensed signal is compared with said at least one predetermined signal by~~ comparison by intercorrelation.

11. (Currently amended) The method ~~as claimed in any one~~ of ~~claims~~ claim 1 ~~to 9~~, ~~in which, during the recognition step,~~ wherein said comparison of said sensed signal with said at least one predetermined signal comprises ~~the sensed signal is compared with said at least one predetermined signal~~ comparison by ~~a process of recognition chosen from~~

voice recognition, signal recognition, shape recognition ~~and~~ or recognition by a neural network.

12. (Currently amended) The method of claim 1 ~~as claimed in any one of the preceding claims, in which, during the recognition step,~~ wherein said position of said impact is associated with either (i) a unique active zone in said plurality of active zones or (ii) no active zone in said plurality of active zones ~~the sensed signal is associated either with a single active zone, or with no active zone~~.

13. (Currently amended) The method ~~as claimed in~~ of claim 1 ~~12~~, ~~in which~~ wherein each active zone in said plurality of active zones corresponds to ~~is associated with~~ a predetermined information element and, when the position of the impact is associated with an active zone, an electronic device is made to use the predetermined information element corresponding to ~~that~~ the active zone.

14. (Currently amended) The method ~~as claimed in either one~~ of ~~claims~~ claim 1 ~~12 and 13~~, ~~in which~~ wherein the surface ~~(9, 15, 17, 22)~~ of the object forming an acoustic interface comprises a ~~number n~~ plurality of active zones ~~(10), n being at least equal to 2~~, and the ~~recognition step~~ localizing comprises ~~the following sub-steps~~:

[[-]] performing ~~an~~ a respective intercorrelation ~~is made~~ between the sensed signal S(t) and each said predetermined signal $R_j(t)$ in said at least one predetermined signals ~~$R_i(t)$~~, wherein i ~~being~~ is a natural integer ~~lying~~ between 1 and n ~~which~~ and wherein i designates an active zone in said plurality of active zones, ~~and~~ thereby obtaining one or more respective intercorrelation functions Ci(t) ~~are thus obtained,~~;

[[-]] determining a potentially activated active zone j ~~is determined which corresponds~~ corresponding to ~~the result of~~ an intercorrelation function Cj(t), in the one or more respective intercorrelation functions Ci(t), wherein the intercorrelation function Cj(t) ~~having~~ has a maximum amplitude greater than those of the other ~~results~~ intercorrelation functions Ci(t)~~,~~;

[[-]] determining the distribution D(i) of the amplitude maxima of the intercorrelation ~~results~~ functions wherein ~~is also determined~~:

~~D(i) = Max ((Ci(t)),~~

D(i) = Max (Ci(t));

[[-]] determining the distribution D'(i) of the amplitude maxima of the intercorrelation function ~~results~~ C'i(t) between (i) the predetermined signal corresponding to the potentially activated zone, Rj(t), and (ii) each respective predetermined signal ~~the various predetermined signals~~ Ri(t) wherein ~~is also determined~~:

~~D'(i) = Max( (C'i(t)),~~

$$D'(i) = Max(C'i(t));$$

[[-]] computing an intercorrelation between D'(i) and D(i); and

determining ~~a determination is made as to~~ whether the impact was generated on the active zone j as a function of a level of correlation between the distributions D(i) and D'(i) computed by said intercorrelation between D'(i) and D(i).

15. (Currently amended) The method ~~as claimed in either one~~ of ~~claims~~ claim 1 ~~12 and 13, in which, during the recognition step~~, the method further comprising:

~~sensed signal is processed in order to extract therefrom the~~ extracting data from a sensed signal in said at least one sensed signal representative of ~~certain~~ a ~~characteristics~~ sensed characteristic of the sensed signal;

extracting data from a predetermined signal in said plurality of predetermined signals representative of a reference characteristic of the predeteremined signal; and

wherein

~~and the data thus extracted is compared~~ said comparison of the sensed signal with the least at one predetermined signals comprises comparing the sensed characteristic to the reference characteristic ~~reference data extracted from the signal that is sensed when an impact is generated on each active zone~~.

16. (Currently amended) The method ~~as claimed in~~ of claim 15 wherein ~~, in which, during the recognition step,~~ said sensed characteristic is formulated as a first code and wherein said comparison of the sensed signal with the at least one predetermined signals comprises comparing ~~determined from said data extracted from the sensed signal and this~~ the first code ~~is compared~~ with a table of codes, wherein each code in said table of codes represents data from a predetermined signal corresponding to an active zone in said plurality of active zones ~~which gives a correspondence between at least certain codes and each active zone~~.

17. (Currently amended) The method ~~as claimed in any one of claims 1 to 14~~ of claim 1, ~~in which~~ wherein the object forming an acoustic interface ~~(5, 3, 16, 18)~~ comprises ~~at least two~~ a plurality of active zones ~~(10)~~ ~~and~~ and wherein said localizing comprises ~~, during the recognition step, the~~

determining a plurality of resemblance values, each resemblance value representative of ~~the~~ a resemblance between the sensed signal and a ~~the~~ predetermined ~~signals~~ signal in said plurality of predetermined signals ~~are determined,~~;

associating the position of the impact (I) ~~is associated~~ with ~~several~~ a plurality of adjacent active zones as a function of said plurality of resemblance values ~~(R1-R4) corresponding to a maximum resemblance, called reference active zones, then,~~; and

identifying the position of the impact (I) on the surface ~~is determined as~~ based on a function of the resemblance values attributed to the plurality of adjacent ~~reference~~ active zones ~~(R1-R4)~~ associated with said impact.

18. (Currently amended) The method ~~as claimed in~~ of claim 17, wherein said identifying the position of the impact (I) on the surface based on said function comprises correlating ~~in which the position of the impact (I) on the surface is determined such that~~ the resemblance values ~~attributed~~ corresponding to the plurality of adjacent ~~reference~~ active zones ~~(R1-R4) correspond as much as possible~~ to ~~the~~ one or more theoretical resemblance values computed for said ~~reference~~ plurality of adjacent active zones for an impact generated in said position on the surface.

19. (Cancelled)

20. (Currently amended) The method ~~as claimed in~~ of claim ~~19~~ 18, ~~in which~~ wherein ~~the~~ a theoretical resemblance value in said one or more theoretical resemblance values ~~are functions~~ is a function of the position of the impact on the surface~~,~~ wherein said function is determined prior to said localizing for said plurality of adjacent ~~in advance for each possible set of reference~~ active zones ~~(R1-R4)~~.

21. (Currently amended) The method ~~as claimed in~~ of claim 1 ~~8, in which the active zone is identified by comparison between~~ wherein said comparison of the sensed signal with at least one predetermined signal in the plurality of predetermined signals comprises

comparing a ~~the~~ phase of ~~the~~ a predetermined ~~signals Ri(t)~~ signal in the plurality of predetermined signals with a phase ~~and~~ of the sensed signal.

22. (Currently amended) The method ~~as claimed in~~ of claim 21, ~~in which:~~ the method further comprising:

[[-]] computing a Fourier transform $R_i(\omega)=|R_i(\omega)|\bullet e^{j\ \varphi i(\omega)}$ of a predetermined signal in the plurality of predetermined signals that corresponds to an active zone i in said plurality of active zones;

computing a Fourier transform $S(\omega)=|S(\omega)|\bullet e^{j\ \varphi i(\omega)}$ of a sensed signal in the at least one sensed signals; wherein

said comparison of the sensed signal in the at least one sensed signal with said at least one predetermined signal in the plurality of predetermined signals comprises comparing:

$$S'(\omega) \quad \text{to} \quad R_i'(\omega)$$

wherein,

$S'(\omega)$ is the phase component of the Fourier transform of the sensed signal for those frequency bands ω in which the amplitude $|S(\omega)|$ is greater than a predetermined threshold; and

$R_i'(\omega)$ is the phase component of the Fourier transform of the predetermined signal for those frequency bands ω in which the amplitude $|R_i(\omega)|$ is greater than a predetermined threshold

~~a computation is made of the Fourier transform~~ $\cancel{R_i(\omega)=|R_i(\omega)|\bullet e^{j\varphi i(\omega)}}$ ~~of each acoustic signal Ri(t) generated by an impact on the active zone i, where i is an index lying between 1 and n, and from this Fourier transform only the phase component~~ $\cancel{e^{j\ \varphi i(\omega)}}$ ~~is retained, only in the frequency bands ω in which the amplitude |Ri(ω)| is greater than~~ a ~~predetermined threshold;~~

~~then the same process is applied to each sensed acoustic signal S(t) during the normal operation of the device~~.

23. (Currently amended) The method ~~as claimed in~~ of claim 22, ~~in which~~ wherein the predetermined threshold is equal to the maximum of MAX/D and |B(ω)|, where:

[[-]] MAX is ~~chosen from~~ the maximal value of the ~~modules~~ amplitude $|R_i(\omega)|$, the maximal value of ~~the modules~~ amplitude $|R_i(\omega)|$ ~~each~~ normalized in energy, ~~and~~ or the maximal value of ~~the~~ an envelope of ~~the~~ an average of ~~the modules~~ amplitude $|R_i(\omega)|$ ~~each~~ normalized in energy,

[[-]] D is a constant, and

[[-]] |B(ω)| is ~~the~~ an average of ~~several~~ a plurality of noise spectra in the object forming an acoustic interface, acquired at different times.

24. (Currently amended) The method ~~as claimed in either one of claims 22 or 23~~ of claim 22, the method further comprising ~~in which, during the normal operation of the device~~:

[[-]] computing, for each active zone i in the plurality of active zones, ~~a product Pi(ω) is computed equal to SN(ω) multiplied by the conjugate of RiN(ω) for references i = 1 ... n,~~

Pi(ω) = SN(ω) multiplied by the conjugate of RN(ω);

[[-]] normalizing, for each active zone i in the plurality of active zones, Pi(ω); ~~then the products Pi(ω) are normalized,~~

[[-]] obtaining a plurality of temporal functions, each temporal function Xi(t) in said plurality of temporal functions corresponding to an active zone i in the plurality of active zones, wherein Xi(t) for a respective active zone i is an ~~then the~~ inverse Fourier transform of ~~all the products~~ the product Pi(ω) for the respective active zone; and ~~is carried out and temporal functions Xi(t) are obtained,~~

[[-]] attributing ~~and~~ the signal S(t) ~~is attributed~~ to an active zone ~~(10)~~ in the plurality of active zones as a function of said temporal functions ~~Xi(t)~~.

25. (Currently amended) The method ~~as claimed in~~ of claim 24, ~~in which~~ wherein the signal S(t) is attributed to ~~an~~ the active zone ~~(10)~~ ~~as a function of the~~ corresponding to a temporal function having a maximum value that is greater than the maximum value of any other temporal function in said plurality of ~~maximal values of said~~ temporal functions ~~Xi(t)~~.

26. (Currently amended) A device ~~especially adapted to implement a method according to any one of the preceding claims,~~ for locating a position of an impact on a surface ~~(9,~~

~~15, 17, 22)~~ forming part of an object ~~(5, 3, 16, 18)~~ forming an acoustic interface, provided with at least one acoustic sensor ~~(6)~~, ~~this~~ the device comprising:

means for ~~sensing~~ measuring at least one sensed signal from acoustic waves generated in the object forming ~~an~~ said acoustic interface ~~(5, 3, 16, 18)~~ by said impact, and

means for ~~locating~~ localizing the position of the impact on said surface by processing a sensed signal in said at least one sensed ~~signal~~ signals, characterized in that ~~it~~ said means for localizing comprises:

recognition means suitable for comparing the sensed signal with at least one predetermined signal, each respective predetermined signal in said at least one predetermined signal corresponding to ~~the~~ a signal that is sensed when an impact is generated on an ~~at least one~~ active zone ~~(10)~~ forming part of the surface of the object ~~(5, 3, 16, 18)~~ that corresponds to the respective predetermined signal, and

means for associating the location of the impact with said active zone ~~(10) if~~ when the sensed signal is sufficiently similar to said predetermined signal.

27. (New) The method of claim 3, the method further comprising repeating said localizing for each respective sensed signal in the plurality of sensed signals.

28. (New) The method of claim 1, wherein said object is a pane, a door, a window, a portable tray, a computer screen, a display panel, an interactive terminal, a toy, a vehicle dashboard, a rear of a front seat back of an automobile vehicle, a rear of an airplane seat, a wall, a floor, or a vehicle fender.

29. (New) The method of claim 1 wherein a sensor in said at least one sensor is a piezoelectric sensor, a capacitive sensor, a magnetostrictive sensor, an electromagenetic sensor, an acoustic velocimeter, or an optical sensor.

30. (New) The method of claim 1 wherein an active zone in said plurality of active zones is delimited on said surface by a physical marking.

31. (New) The method of claim 1 wherein an active zone in said plurality of active zones is delimited by projecting an image onto said surface.

32. (New) The method of claim 13 wherein the predetermined information element is a command, a digit, a letter, or a position on said surface.

33. (New) The method of claim 1 wherein said plurality of active zones comprise a virtual keyboard and wherein said impact is caused by hitting an active zone in said plurality of active zones with an objected selected from the group consisting of a fingernail, a fingertip, a pen, or a style.

34. (New) A method of identifying a location of an impact on a surface of an object, wherein said surface is delineated into a plurality of active zones, the method comprising:

measuring a sensed signal caused by said impact;

comparing said sensed signal with a library of predetermined signals, each predetermined signal in said library of predetermined signals corresponding to an active zone in said plurality of active zones; wherein

when a correspondence between said sensed signal and a respective predetermined signal in said plurality of sensed signals is sufficiently similar, said location of said impact is deemed to be in the active zone corresponding to said respective predetermined signal.

35. (New) The method of claim 34 wherein said comparing comprises intercorrelating said sensed signal with a predetermined signal in said library of predetermined signals.

36. (New) The method of claim 34 wherein said sensed signal is normalized prior to said comparing.

37. (New) The method of claim 34, the method further comprising:

converting said sensed signal to a sensed code representative of said sensed signal and wherein

said library of signals comprises a plurality of predetermined codes, each predetermined code representing a different signal in said plurality of predetermined signals; and wherein

said comparing comprises comparing said sensed code with a predetermined code in said plurality of predetermined codes.

38. (New) The method of claim 37, wherein said sensed code is a 16-bit code wherein

(a) the first eight bits of said 16-bit code are determined by a frequency spectrum of the sensed signal that is subdivided into eight predetermined frequency tranches $[f_k, f_{k+1}]$, wherein k=1..8 and wherein the bit of rank k is equal to

1 when a final energy value given by the spectrum at frequency $f_{k+1}$ is greater than an average energy value of an acoustic wave in the frequency tranches $[f_k, f_{k+1}]$ and

0 when a final energy value given by the spectrum at frequency $f_{k+1}$ is not greater than the average energy value of the acoustic wave in the frequency tranches $[f_k, f_{k+1}]$; and wherein

(b) the last eight bits of the code are determined from the sensed signal when it is subdivided into nine predetermined temporal tranches $[t_k, t_{k+1}]$, wherein k=1..9 and wherein the bit of rank k+8 is equal to

1 when an average value of a signal power during the period $[t_k, t_{k+1}]$ is greater than an average value of the signal power during the period $[t_{k+1}, t_{k+2}]$, k=1..8,

0 when an average value of a signal power during the period $[t_k, t_{k+1}]$ is not greater than an average value of the signal power during the period $[t_{k+1}, t_{k+2}]$, k=1..8.

39. (New) A computer for locating a position of an impact on a surface of an object forming an acoustic interface, the surface provided with at least one acoustic sensor, the computer comprising:

instructions for receiving measurements of at least one sensed signal from acoustic waves generated in the object forming an acoustic interface by said impact;

instructions for localizing said position of said impact on said surface by processing of said at least one sensed signal, the processing characterized by a comparison of a sensed signal in the at least one sensed signal with at least one predetermined signal in a plurality of predetermined signals, wherein

each respective predetermined signal in said plurality of predetermined signals corresponds to an active zone in a plurality of active zones on said surface, and

each respective predetermined signal in said plurality of predetermined signals represents a signal that is sensed when a reference impact is generated on the active zone in said plurality of active zones that corresponds to the respective predetermined signal, and wherein,

the position of the impact is associated with an active zone in said plurality of active zones by said instructions for localizing when the sensed signal is sufficiently similar to said predetermined signal corresponding to the active zone.

40. (New) The computer of claim 39 wherein said acoustic waves generated in the object forming an acoustic interface by said impact are measured by at least one acoustic sensor that is in electrical communication with said computer.

41. (New) A computer for identifying a location of an impact on a surface of an object, wherein said surface is delineated into a plurality of active zones, the computer comprising:

instructions for receiving measurements of a sensed signal from acoustic waves generated in the object by said impact;

instructions for comparing said sensed signal with a library of predetermined signals, each predetermined signal in said library of predetermined signals corresponding to an active zone in said plurality of active zones; wherein

when a correspondence between said sensed signal and a respective predetermined signal in said library of sensed signals is sufficiently similar, said location of said impact is deemed to originate from the active zone corresponding to said respective predetermined signal.

42. (New) The computer of claim 41 wherein said instructions for comparing comprise instructions for intercorrelating said sensed signal with a predetermined signal in said library of predetermined signals.

43. (New) The computer of claim 41, further comprising instructions for normalizing said sensed signal prior to execution of said instructions for comparing.

44. (New) The computer of claim 41, further comprising:

instructions for converting said sensed signal to a sensed code representative of said sensed signal and wherein

said library of signals comprises a plurality of predetermined codes, each predetermined code in said plurality of predetermined codes representing a different signal in said plurality of predetermined signals; and wherein

said instructions for comparing comprise comparing said sensed code with a predetermined code in said plurality of predetermined codes.

45. (New) The computer of claim 44, wherein said sensed code is a 16-bit code wherein

(a) the first eight bits of said 16-bit code are determined by a frequency spectrum of the sensed signal that is subdivided into eight predetermined frequency tranches $[f_k, f_{k+1}]$, wherein k=1..8 and wherein the bit of rank k is equal to

1 when a final energy value given by the spectrum at frequency $f_{k+1}$ is greater than an average energy value of an acoustic wave in the frequency tranches $[f_k, f_{k+1}]$ and

0 when a final energy value given by the spectrum at frequency $f_{k+1}$ is not greater than the average energy value of the acoustic wave in the frequency tranches $[f_k, f_{k+1}]$; and wherein

(b) the last eight bits of the code are determined from the sensed signal when it is subdivided into nine predetermined temporal tranches $[t_k, t_{k+1}]$, wherein k=1..9 and wherein the bit of rank k+8 is equal to

1 when an average value of a signal power during the period $[t_k, t_{k+1}]$ is greater than an average value of the signal power during the period $[t_{k+1}, t_{k+2}]$, k=1..8,

0 when an average value of a signal power during the period $[t_k, t_{k+1}]$ is not greater than an average value of the signal power during the period $[t_{k+1}, t_{k+2}]$, k=1..8.